



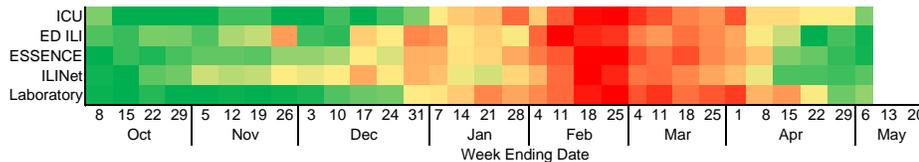
# Chicago Flu Update



Rahm Emanuel, Mayor

May 12, 2017

Julie Morita, MD, Commissioner



The Quick View heat graph represents the varying level of intensity among the five influenza surveillance indicators that are routinely monitored during the influenza season (Figures 1-5).

**News & Updates** The 22nd Annual Chicago Infection Control Conference will be held on June 9th, 2017 at the Chicago Cultural Center; visit the Chicago HAN website for more information and to register. Influenza viruses are detected throughout the year at low levels and can cause disease. Vaccination is the best way to protect against influenza and all Chicagoans aged six months and older are encouraged to get vaccinated annually.

### What is the risk?

Currently, the risk of influenza infection has decreased.

### Are severe cases of influenza occurring?

For the week of April 30-May 6, 2017, two influenza-associated ICU hospitalizations were reported (Figure 1).

Since October 2, 2016, 272 influenza-associated ICU hospitalizations have been reported; 184 were positive for influenza A (107 H3N2, 2 H1N1pdm09 and 75 unknown subtype [subtyping not attempted or not all subtypes tested]) and 88 were positive for influenza B. The median age of reported cases is 62 years (range of 1 month - 100 years). Seventeen deaths have been reported among ICU cases including two pediatric patients and 18 cases were admitted from long-term care facilities; selected characteristics are summarized in Table 1.

Table 1.

Table 1. Selected attributes of influenza-associated intensive care unit hospitalizations reported for Chicago residents for current season (2016-2017), October-May.

| Age Group             | #   | %* | Sex                             | #   | %  |
|-----------------------|-----|----|---------------------------------|-----|----|
| 0-4                   | 28  | 10 | Male                            | 129 | 47 |
| 5-17                  | 29  | 11 | Female                          | 143 | 53 |
| 18-24                 | 6   | 2  | <b>Med. Cond./Complication†</b> |     |    |
| 25-49                 | 31  | 11 | Lung Disease                    | 88  | 32 |
| 50-64                 | 59  | 22 | Cardiac Disease                 | 79  | 29 |
| ≥65                   | 119 | 44 | Diabetes                        | 64  | 24 |
| <b>Race/Ethnicity</b> |     |    | Ventilator Support              | 70  | 26 |
| NH-White              | 81  | 30 | Reported Deaths                 | 17  | 6  |
| NH-Black              | 103 | 38 | <b>Treatment/Vaccination†</b>   |     |    |
| Hispanic              | 73  | 27 | Reported Antiviral Tx           | 188 | 69 |
| Asian                 | 15  | 6  | Reported Flu Shot               | 108 | 40 |

\* Percentages may not add up to 100 due to rounding; † As reported in INEDSS (Illinois National Electronic Disease Surveillance System).

### How much influenza-like illness is occurring?

CDPH receives data from several hospitals in Chicago that provide emergent care, which report on a weekly basis the total number of emergency department visits, and of those visits, the number with influenza-like illness (ILI) (i.e., fever of 100°F or greater, with cough or sore throat). For the week of April 30-May 6, 2017, with 8 hospitals reporting, 1.7% of emergency department visits were due to ILI (Figure 2).

**ESSENCE** is an electronic syndromic surveillance system that utilizes emergency department chief complaint data submitted daily by Chicago hospitals; ILI activity is determined solely based on the patient's chief complaint and does not take into account the entire medical record, as the ILI activity reported in Figure 2 does.

Figure 1. Number of influenza-associated ICU hospitalizations reported for Chicago residents, for the current season (2016-2017) by influenza type, October-May.

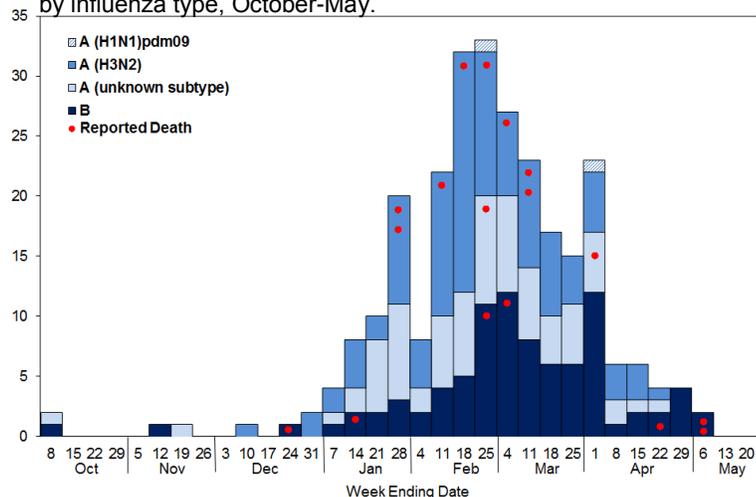
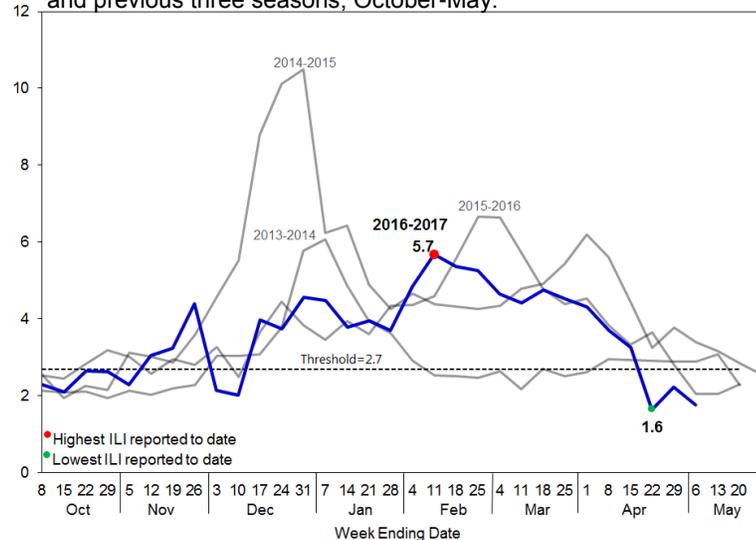


Figure 2. Percent of emergency department visits attributed to influenza-like illness based on manual reports by individual hospitals, Chicago, by week, for the current season (2016-2017) and previous three seasons, October-May.



Currently, all Chicago hospitals submit data to **ESSENCE**, covering every emergency department visit in the city. For the week of April 30-May 6, 2017, 1.2% of all emergency department visits were due to ILI; Southside hospitals had slightly higher ILI at 1.6% and Westside hospitals had slightly lower ILI at 1.1% and Northside hospitals at 1.0%(Figure 3).

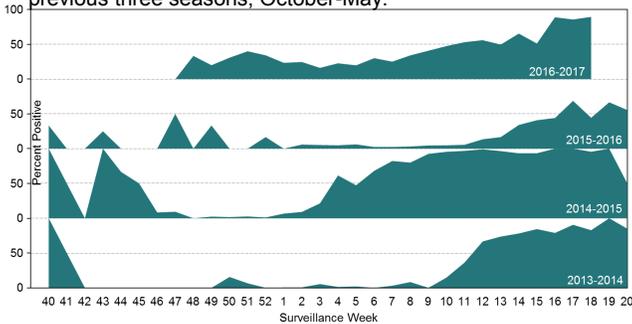
Several outpatient clinics throughout Chicago participate in CDC's Influenza-like Illness Surveillance Network (ILINet) by reporting on the number of patients with ILI seen weekly. For the week of April 30-May 6, 2017, with 21 facilities reporting, 3.8% of outpatient visits were due to influenza-like illness (Figure 4).

### Which influenza strains are circulating?

Data on influenza virus test results are reported by Chicago laboratories performing influenza RT-PCR. For the week of April 30-May 6, 2017, with 6 laboratories reporting, 19 of the 575 (3.3%) specimens tested for influenza were positive 2 A (H3N2), 0 A (H1N1pdm09), 0 A [unknown subtype], and 17 influenza B).

Since October 2, 2016, 2,060 of 20,538 (10.0%) specimens tested for influenza have been positive; 1,251 typed as influenza A (1,069 H3N2, 21 H1N1pdm09, and 161 unknown subtype [subtyping not attempted or not all subtypes tested]) and 809 typed as influenza B (Figure 5). Since mid-March, influenza B has accounted for over 50% of the specimens testing positive for influenza; influenza B tends to increase towards the end of the season (Figure 6).

Figure 6. Percent of specimens testing positive (by RT-PCR) for influenza B as reported by local laboratories serving Chicago hospitals, for the current season (2016-2017) and previous three seasons, October-May.



### Where can I get more information?

The Centers for Disease Control and Prevention's **FluView**<sup>2</sup> report provides national updates and trends related to the intensity of influenza activity across the United States, as well as detailed information on antiviral resistance, severity of illness, and other topics. Updates specific to **Illinois**<sup>3</sup> and **Suburban Cook County**<sup>4</sup> are also available online. Current and archived issues of the *Chicago Flu Update* can be found on the CDPH website section **Current Flu Situation in Chicago**<sup>5</sup>.

### Reporting Information

The Illinois Department of Public Health (IDPH) has issued **influenza testing and reporting recommendations**<sup>6</sup>; healthcare facilities can report cases to the Chicago Department of Public Health via the Illinois National Electronic Disease Surveillance System (**INEDSS**).<sup>7</sup>

Figure 3. Percent of emergency department visits attributed to influenza-like illness by hospital region based on chief complaint data submitted to ESSENCE, Chicago, by week, for the current season (2016-2017) and previous three seasons, October-May.

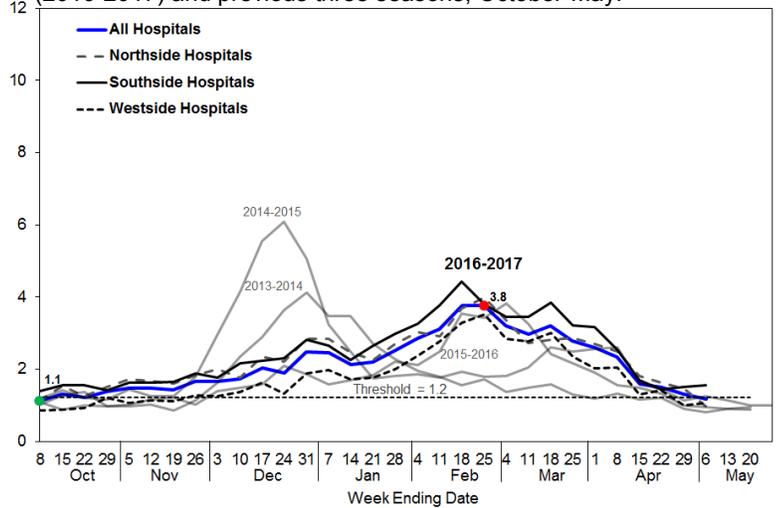


Figure 4. Percent of medically-attended outpatient visits attributed to influenza-like illness as reported by ILINet facilities, Chicago, by week, for the current season (2016-2017) and previous three seasons, October-May.

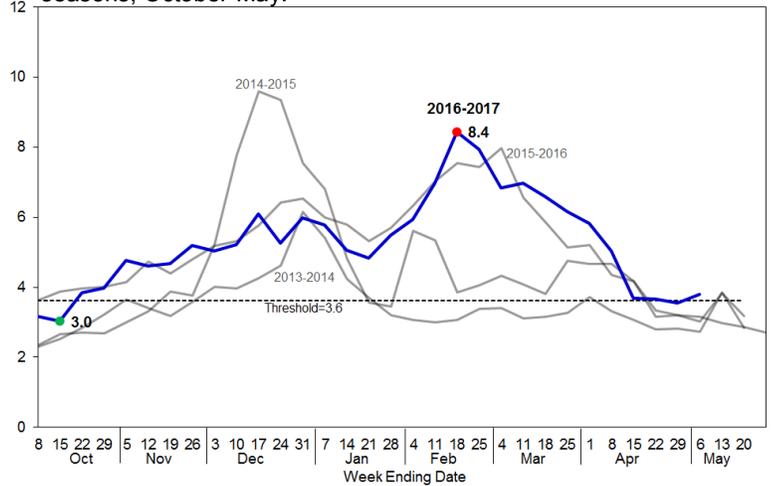
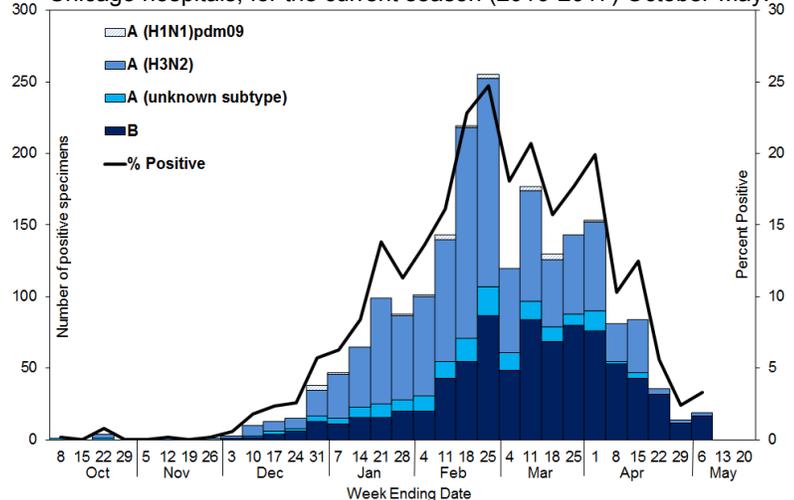


Figure 5. Percent of specimens testing positive (by RT-PCR) for influenza by subtype as reported by local laboratories serving Chicago hospitals, for the current season (2016-2017) October-May.



<sup>2</sup><http://www.cdc.gov/flu/weekly/index.htm>; <sup>3</sup><http://dph.illinois.gov/topics-services/diseases-and-conditions/influenza/surveillance>; <sup>4</sup><http://cookcountypublichealth.org/data-reports/communicable-diseases>; <sup>5</sup>[http://www.cityofchicago.org/city/en/depts/cdph/supp\\_info/influenza/current\\_flu\\_situationinchicago2011.html](http://www.cityofchicago.org/city/en/depts/cdph/supp_info/influenza/current_flu_situationinchicago2011.html); <sup>6</sup><http://www.dph.illinois.gov/sites/default/files/publications/ohp-labs-influenzaannual-testing-and-reportingmemo-09222016.pdf>; <sup>7</sup><https://dph.partner.illinois.gov/>